

IN THE CLAIMS:

The following is a complete list of the claims now pending; this list replaces all earlier versions and listings of the claims.

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1. (Currently Amended) An image processing apparatus comprising:

a detector, arranged to detect an image area excluding a frame image contained in an inputted image;

a generator, arranged to generate correction information of the detected image area; and

a corrector, arranged to correct the image area based on the generated correction information,

wherein said detector detects the frame image, which has gradation, by detecting using a detection method of determining whether or not a pixel of interest and pixels that adjacent to the pixel of interest have a same hue and a difference between lightness and saturation having a predetermined value or less.

2. (Cancelled)

3. (Currently Amended) The apparatus according to claim [[2]] 1,

wherein said detector identifies the image area other than the frame image based on a detection result of the pixel constructing the frame image and supplies information representing the identified image area to said generator and said corrector .

4. (Previously Presented) The apparatus according to claim 3, wherein said detector scans the image in a horizontal direction in units of columns and detects, as two ends of the image area in the horizontal direction, a first column having a pixel determined not to construct the frame image and a next column having a pixel determined to construct the frame image.

5. (Previously Presented) The apparatus according to claim 3, wherein said detector scans the image in a vertical direction in units of rows and detects, as two ends of the image area in the vertical direction, a first row having a pixel determined not to construct the frame image and a next row having a pixel determined to construct the frame image.

6. (Previously Presented) The apparatus according to claim 3, wherein, after correction by said corrector has ended, said detector executes identification processing of an image area other than the frame image again.

7. (Previously Presented) The apparatus according to claim 1, wherein said generator generates, as the correction information, highlight and shadow points and white and black balances of the image area.

8. (Previously Presented) The apparatus according to claim 7, wherein said corrector corrects gradation of the image area based on the highlight and shadow points and the white and black balances, which are generated by said generator.

9. (Currently Amended) An image processing method comprising the steps of:

detecting an image area excluding a frame image contained in an inputted image;

generating correction information of the detected image area; and

correcting the image area based on the generated correction

information,

wherein, in said detecting step, the frame image, which has gradation, is detected by detecting using a detection method of determining whether or not a pixel of interest and pixels that adjacent to the pixel of interest have a same hue and a difference between lightness and saturation having a predetermined value or less.

10. (Cancelled)

11. (Currently Amended) The method according to claim [[10]] 11, further comprising the steps of:

identifying the image area other than the frame image based on a detection result of the pixel constructing the frame image; and

supplying information representing the identified image area for generation processing of the correction information and correction processing of the image area.

12. (Previously Presented) The method according to claim 11, wherein said detecting step comprises scanning the image in a horizontal direction in units of columns

and detecting, as two ends of the image area in the horizontal direction, a first column having a pixel determined not to construct the frame image and a next column having a pixel determined to construct the frame image.

C1 13. (Previously Presented) The method according to claim 11, wherein said detecting step comprises scanning the image in a vertical direction in units of rows and detecting, as two ends of the image area in the vertical direction, a first row having a pixel determined not to construct the frame image and a next row having a pixel determined to construct the frame image.

14. (Previously Presented) The method according to claim 11, wherein, after correction processing has ended, identification processing of an image area other than the frame image is executed again.

15. (Previously Presented) The method according to claim 9, wherein said generating step comprises generating, as the correction information, highlight and shadow points and white and black balances of the image area.

16. (Previously Presented) The method according to claim 15, wherein said correcting step comprises correcting gradation of the image area based on the highlight and shadow points and the white and black balances, which are generated in said generating step.

17. (Currently Amended) A computer program product ~~comprising a computer-readable medium storing~~ embodying computer program code codes for executing an image processing method, ~~said product comprising process procedure codes for~~ the method comprising the steps of:

~~a detection step of~~ detecting an image area excluding a frame image contained in an inputted image;

~~a generation step of~~ generating correction information of the detected image area; and

~~a correction step of~~ correcting the image area based on the generated correction information,

wherein, in the detection step, the frame image, which has gradation, is detected by ~~detecting~~ using a detection method of determining whether or not a pixel of interest and pixels that adjacent to the pixel of interest have a same hue and a difference between lightness and saturation having a predetermined value or less.

18.-20. (Cancelled)